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TEST REPORT	
Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

SPECIFIC GRAVITY AND WATER ABSORPTION
FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Sand/M sand	Proposed Use	Concrete
Location/Source	At Plant/site	Date of Sampling	01-04-2019
Period of Soaking	24 hours	Date of Testing	01-04-2019

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	630	653	676	
B	Weight of oven - dry sample gm.	622	645	668	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1673	1688	1698	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.681	2.688	2.640	**2.670**
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.286	1.240	1.198	**1.241**

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

SIEVE ANALYSIS

Total Weight:	3000	gms			
Type of Materia	Fine aggregate (River Sand/M sand)		Proposed Use	Concrete	
Sample Location	At Plant/site		Date of Sampling	01-04-2019	
			Date of Testing	01-04-2019	
IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	238	238	7.93	92.07	90 - 100
2.36 mm	276	514	17.13	82.87	75 - 100
1.18 mm	412	926	30.87	69.13	55 - 90
600 mm	570	1496	49.87	50.13	35 -59
300 mm	749	2245	74.83	25.17	8-30
150 mm	530	2775	92.50	7.50	0 - 10
Pan	225	3000			-
Remarks :		Satisfactory / Not Satisfactory			

Consultant's Representative

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Test Report on Cement

Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	HONNAPPA MURTHY
Sample ID	Cement
Date of Sample Tested	01-04-2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	38 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	385 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	5mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	

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Test Report on Cement

Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	HONNAPPA MURTHY
Sample ID	Cement
Date of Sample Tested	01-04-2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	36 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	380	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	6mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	

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Project:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client:	Bruhat Bengaluru Mahanagara Palike
Consultant:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor:	HONNAPPA MURTHY

AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

Material Use:	WMM	Date of Sampling	02-04-19
Test Location:	At plant	Date of Testing	02-04-19

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	400.00	388.00	395.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	313.00	299.00	304.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	87.00	89.00	91.00	
4	Aggregate Impact Value (%)	(Wc/Wa)*100	21.75	22.94	23.04	
5	Average Aggregate impact value	(%)	22.58			Max - 30 %
6	Remarks	Satisfactory / Not Satisfactory				

Consultant's Representative

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Project:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client:	Bruhat Bengaluru Mahanagara Palike
Consultant:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor:	HONNAPPA MURTHY

AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

Proposed Use:	WMM	**Date of Sampling**	**02-04-19**
Sample Location:	**At plant**	**Date of Testing**	**02-04-19**

Sl. No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
1	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	402.00	450.00	384.00	
2	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	300.00	350.00	300.00	
3	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	102.00	100.00	84.00	
4	Aggregate Impact Value (%)	(Wc/Wa)* 100	25.37	22.22	21.88	
5	Average Aggregate impact value	(%)	23.16			Max - 30 %

Remarks: ✓ Satisfactory / Not Satisfactory

Consultant's Representative

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Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	WMM	Proposed Use	WMM
Sample Location	At plant	Date of Sampling	02-04-19
		Date of Testing	02-04-19

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	611	84	520	78
16.0	12.5	1127	123	1000	120
12.5	10.0	774	53	723	64
10.0	6.3	616	54	566	43
Total		**3128**	**314**	**2809**	**305**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	10.04	
Elongation Index(%):	10.86	
Combined FI+EL (%)	20.90	

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Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS, Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	02-04-19
Type of Mix	:	WMM
Sample I/D	:	WMM 1

GRADATION FOR WMM
(As per MORT&H 400-11)

Sample Location:	At plant	Date of Sampling:	02-04-19
		Date of testing:	02-04-19
Type of material & Purpose:	WMM	Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	390	390	3.90	96.10	95-100
22.4	1900	2290	22.90	77.10	60-80
11.2	1862	4152	41.52	58.48	40-60
4.75	2000.0	6152	61.52	38.48	25-40
2.36	1422.0	7574	75.74	24.26	15-30
0.6	785.0	8359	83.59	16.41	8.0-22.0
0.075	900.0	9259	92.59	7.41	0-8
Pan	741.0	10000			
Total	10000.0				

Consultant's Representative

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Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	02-04-19
Type of Mix	:	WMM
Sample I/D	:	WMM 2

GRADATION FOR WMM
(As per MORT&H 400-11)

Sample Location:	At plant	Date of Sampling:	02-04-19
		Date of testing:	02-04-19
Type of material & Purpose:	WMM	Oven Dry Wt.(gms):	10000.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	360	360	3.60	96.40	95-100
22.4	2455	2815	28.15	71.85	60-80
11.2	2674	5489	54.89	45.11	40-60
4.75	1428.0	6917	69.17	30.83	25-40
2.36	850.0	7767	77.67	22.33	15-30
0.6	850.0	8617	86.17	13.83	8.0-22.0
0.075	900.0	9517	95.17	4.83	0-8
Pan	483.0	10000			
Total	10000.0				

Consultant's Representative

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Test Report on Compressive Strength of Concrete Cubes

Project:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor	HONNAPPA MURTHY
Condition:	Cement
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	02-04-2019	09-04-2019	7 days	8.822	22500	220	9.78	9.73
2	02-04-2019	09-04-2019	7 days	8.865	22500	219	9.73	
3	02-04-2019	09-04-2019	7 days	8.722	22500	218	9.69	

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PRECAST SLAB (CORE) TEST REPORT

	:	Bruhat Bangalore Mahanagara Palike
	:	HONNAPPA MURTHY
	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
	:	3
	:	15-04-19
	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
	:	M_{20} - 100mm thick

Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
90.00	0.458	2591.75	1.80	0.960	38.32	19.52	21.08	20.23	25.29
90.00	0.451	2552.14	1.80	0.960	38.57	19.64	21.22	20.37	25.46
90.00	0.436	2467.26	1.80	0.960	38.16	19.43	20.99	20.15	25.19

be reproduced, except in full, without the written approval of the laboratory.
above are based on the tests carried out on the samples received in the laboratory.
regarding the report must be reported reported within 15days from the date of testing.

Consultant's Representative

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Project:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client:	Bruhat Bengaluru Mahanagara Palike
Consultant:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor:	HONNAPPA MURTHY

AGGREGATE IMPACT VALUE (IS: 2386 Part - 4)

Proposed Use:	DBM	**Date of Sampling**	**16-04-19**
Sample Location:	At plant	**Date of Testing**	**16-04-19**

Sl No.	Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
(a)	Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	393.00	377.00	383.00	
(b)	Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	298.00	280.00	277.00	
(c)	Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	95.00	97.00	106.00	
(d)	Aggregate Impact Value (%)	(Wc/Wa)*100	24.17	25.73	27.68	
(e)	Average Aggregate impact value	(%)	25.86			Max - 30 %
Remarks:	Satisfactory / Not Satisfactory					

Consultant's Representative

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Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	DBM		**Proposed Use**	**DBM**
Sample Location	At plant		**Date of Sampling**	**16-04-19**
			Date of Testing	**16-04-19**

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	**Retained on IS sieve, mm**	**Total wt. of aggregate retained on sieves (A) gms.**	**Wt. of aggregate passing from Flakiness gauge (B) gms**	**Wt. of aggregate retained on Flakiness gauge (C) gms**	**Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms**
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	7846	674	7170	384
31.5	25.0	4255	202	3572	284
25.0	20.0	2450	272	1978	212
20.0	16.0	1565	341	1000	276
16.0	12.5	560	98	462	159
12.5	10.0	186	63	232	84
10.0	6.3	132	82	85	55
Total		**16994**	**1732**	**14499**	**1454**

Results

Flakiness Index(%):	10.19	
Elongation Index(%):	10.03	
Combined FI+EL (%)	20.22	

Consultant's Representative

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Project	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	Bruhat Bengaluru Mahanagara Palike
Consultant	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	HONNAPPA MURTHY

FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Type of Material	DBM		Proposed Use	DBM
Sample Location	At plant		Date of Sampling	16-04-19
			Date of Testing	16-04-19

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	7843	674	7170	384
31.5	25.0	4252	205	3571	284
25.0	20.0	2450	270	1976	212
20.0	16.0	1565	345	1000	278
16.0	12.5	562	98	463	159
12.5	10.0	285	62	232	88
10.0	6.3	130	82	85	58
Total		**17087**	**1736**	**14497**	**1463**

Results

Flakiness Index(%):	10.16
Elongation Index(%):	10.09
Combined FI+EL (%)	20.25

Consultant's Representative

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Name of Work	:	Improvements to Roads and Drains of Sahakaranagar A,E,F,G Blocks and Surrounding areas in Ward No. 07 Byatarayanapura
Client	:	Bruhat Bengaluru Mahanagara Palike
Consultant	:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	:	HONNAPPA MURTHY
Date of Testing	:	16-04-19
Type of Mix	:	DBM
Sample I/D	:	DBM-1

GRADATION FOR DBM

(As per MORT&H 500-10,Grading-2)

Sample Location:	At plant	**Date of Sampling:**	**16-04-19**
		Date of testing:	**16-04-19**
Type of material & Purpose:	DBM	**Oven Dry Wt.(gms):**	1500.0

IS Sieve size in mm	Weight retained	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
37.50	0	0	0.00	100.00	100.00
26.50	84	84	5.60	94.40	90-100
19.00	112	196	13.07	86.93	71-95
13.20	220	416	27.73	72.27	56-80
4.750	341	757	50.47	49.53	38-54
2.360	184	941	62.73	37.27	28-42
0.300	281	1222	81.47	18.53	7-21
0.075	172	1394	92.93	7.07	2-8
Pan	106	1500			
Total	1500.0				

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